

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 4 (PENNSYLVANIA AVE) AND QUARTER AVENUE / SPAULDING AVENUE IN PRINCE GEORGE'S COUNTY.

MD 4 (PENNSYLVANIA AVE) IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

A SYSTEM READY BASE MOUNTED CABINET AND CONTROLLER WITH ALL NECESSARY EQUIPMENT WILL BE INSTALLED AT THE INTERSECTION. THE INTERSECTION WILL CONTINUE TO OPERATE IN A FULLY-ACTUATED MODE USING 6 NEMA PHASES. MD 4 MAIN LINE OPERATES CONCURRENTLY WITH EXCLUSIVE / PERMISSIVE LEFT TURNS. QUARTER AVENUE AND SPAULDING AVENUE OPERATE CONCURRENTLY.

VIDEO CAMERAS SHALL PROVIDE THE PRESENCE DETECTION. STREET LIGHTING AND STREET NAME SIGNS SHALL BE UPDATED TO CURRENT STANDARDS.

PROJECT CONTACTS:

1. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

MR. BRIAN YOUNG, ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 513-7409

MR. KEVIN NOWAK, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (301) 513-7336

MR. VERNON STINNETT, ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (310) 513-7304

MR. AUGIE REBISH, UTILITY ENGINEER
PHONE: (310) 513-7350

MR. RICHARD DAFF SR., CHIEF TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

MR. EDWARD RODENHIZER, CHIEF SIGNAL SHOP
PHONE: (410) 787-7652

MR. SONNY BAILEY, CHIEF SIGN SHOP
PHONE: (410) 787-7676

THE POWER COMPANY REPRESENTATIVE:

2. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE STANDARD PLATES FOR TRAFFIC CONTROL FROM SECTION MD 104.00 OF THE STANDARDS FOR HIGHWAYS & INCIDENTAL STRUCTURES.

EQUIPMENT LIST 'A'

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

CATEGORY CODE NO.	DESCRIPTION	QUANTITY
900000	FOUR-CHANNEL RACK MOUNTED AMPLIFIERS	1 EA
900000	LOCAL CONTROLLER AND CABINET SIZE 6. VIDEO INTERFACE UNIT AND ALL NECESSARY EQUIPMENT HOUSED IN BASE-MOUNTED CABINET	1 EA
900000	SHEET ALUMINUM SIGNS CONSISTING OF:	59.5 SF
1 EA	R10-11b (24"x24") "NO TURN ON RED" MAST ARM MOUNT	
1 EA	D-3(1) (VAR.x 16") MAST ARM MOUNT (DUAL FACED) "ARROW, Quarter AVE / Quarter AVE, ARROW"	
1 EA	D-3(1) (VAR.x 16") MAST ARM MOUNT (DUAL FACED) "Spaulding AVE, ARROW / ARROW, Spaulding AVE"	
1 EA	M1-5(4) (78"x36") MAST ARM MOUNTED "Pennsylvania AVE, NORTH(dog leg LEFT ARROW),MD 4,SOUTH (RIGHT ARROW)"	
1 EA	"Pennsylvania AVE, SOUTH(dog leg LEFT ARROW),MD 4, NORTH (RIGHT ARROW)"	

EQUIPMENT LIST 'B'

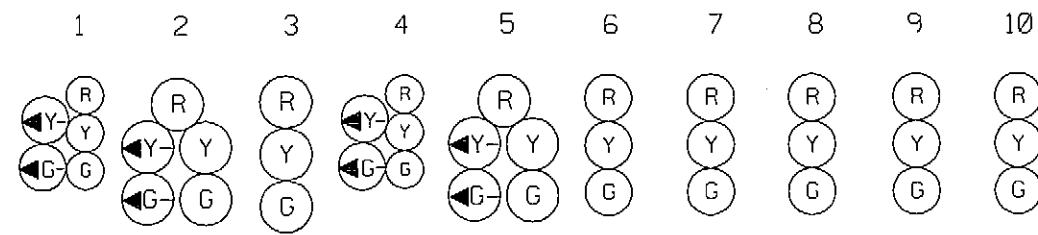
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	DESCRIPTION	QUANTITY
1003	MAINTENANCE OF TRAFFIC	3 EA
2002	TEST PIT EXCAVATION	2 CY
8003	8" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	6 EA
8006	ANY SIZE LIGHTING ARM ON SIGNAL STRUCTURE WITH 250 WATT HPS LUMINAIRE	2 EA
8018	MAST ARM POLE 50' MAST ARM ANY "T" DIM.	1 EA
8020	NON-INVASIVE PROBES ANY LENGTH LEAD-IN CABLE	4 EA
8021	REMOVE & DISPOSE MATERIAL AND EQUIPMENT PER JOB	1 EA
8024	TWIN MAST ARM POLE & 50'/70' MAST ARM ANY "T" DIM.	1 EA
8025	VIDEO CAMERA & ANY LENGTH CABLE	5 EA
8030	1 CONDUCTOR 2/0 AWG THHN/THWN ELECTRICAL CABLE	420 LF
8031	DISCONNECT, PULL BACK & RE-ROUTE EXISTING CABLES	740 LF
8033	SCHEDULE 80 PVC CONDUIT UP TO 4" BORED	115 LF
8034	SCHEDULE 80 PVC CONDUIT UP TO 4" -SLOTTED	175 LF
8035	SCHEDULE 80 PVC CONDUIT UP TO 4" -TRENCHED	420 LF
8038	INSTALL OVERHEAD AND GROUND MOUNTED SIGNS INCLUDING HARDWARE	59.5 SF
8040	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	500 LF
8042	METERED SERVICE PEDESTAL EMBEDDED (100 AMP)	1 EA
8045	CABLE 1-CONDUCTOR, NO. 8 AWG-THHN/THWN	60 LF
8046	FURNISH AND INSTALL ELECTRICAL HANDHOLE	5 EA
8050	12" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	32 EA
8056	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	115 LF
8057	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	1930 LF
8058	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	520 LF
8065	INSTALL CONTROLLER AND CABINET - BASE MOUNT	1 EA

EQUIPMENT LIST 'C'

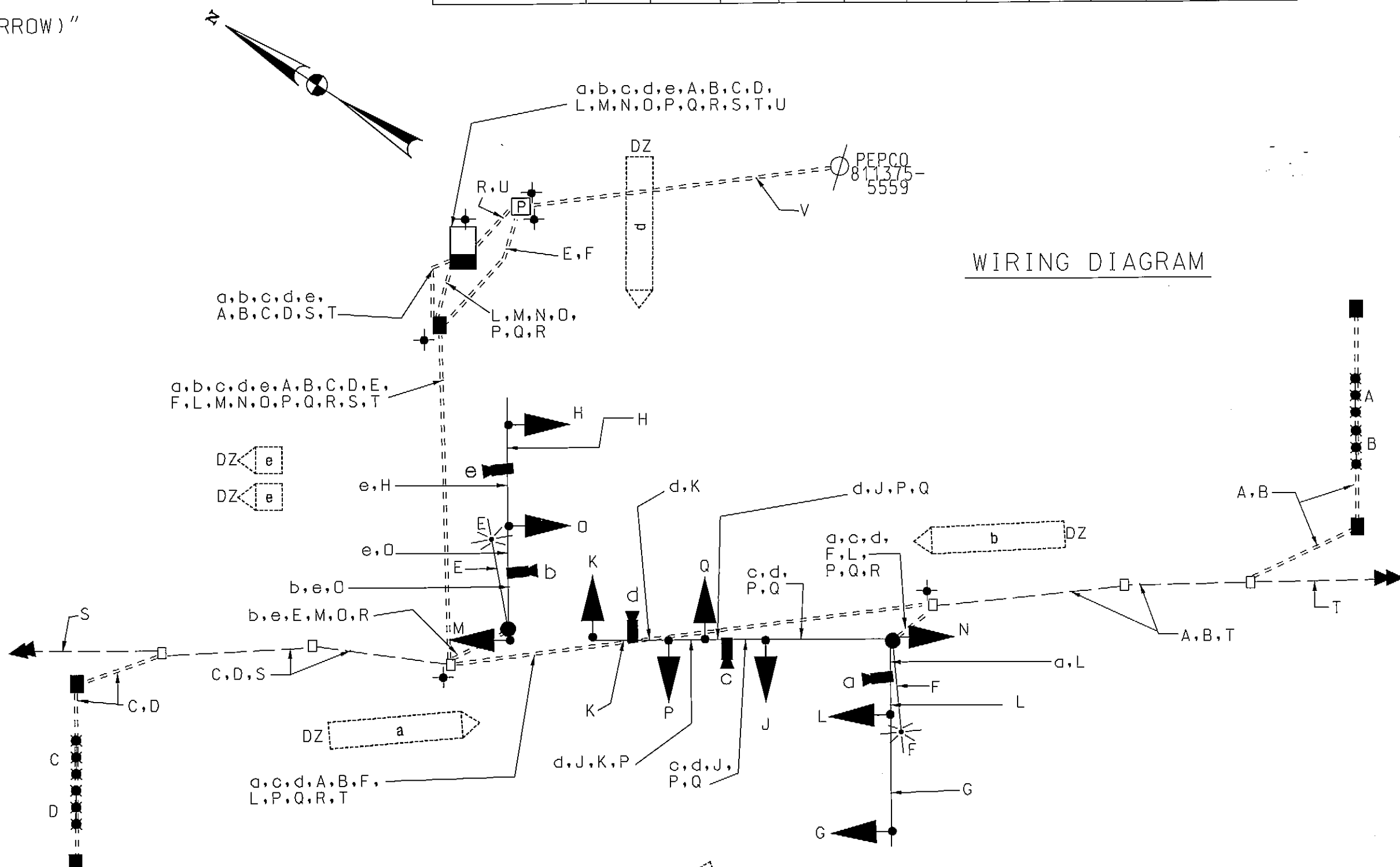
C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASE CHART



Phase 1 & 5	1	2	3	4	5	6	7	8	9	10
1 & 5 Change	R	R	R	R	R	R	R	R	R	R
Phase 1 & 6	G	G	G	R	R	R	R	R	R	R
1 Change	G	G	G	R	R	R	R	R	R	R
Phase 2 & 5	R	R	R	G	G	G	R	R	R	R
5 Change	Y	Y	Y	G	G	G	R	R	R	R
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R
2 & 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R
Phase 4 & 8	R	R	R	R	R	R	G	G	G	G
4 & 8 Change	R	R	R	R	R	R	Y	Y	Y	Y
Flashing	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R
Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

WIRING DIAGRAM



WIRING KEY

- a,b,c,d,e - VIDEO DETECTION CAMERA WITH 3 CONDUCTOR NO 18 AWG LEAD-IN CABLE
- A,B,C,D - NON-INVASIVE PROBES / LEAD-INS TO CONTROLLER
- E,F - 2 CONDUCTOR NO 12 AWG TRAY CABLE
- G,H,J,K - 5 CONDUCTOR NO 14 AWG ELEC. CABLE
- L,M,N,O,P,Q - 7 CONDUCTOR NO 14 AWG ELEC. CABLE
- R - NO 6 AWG STRANDED BARE COPPER GROUND WIRE
- S,T - EXISTING INTERCONNECT CABLE TO BE PULLED-BACK, RE-ROUTE TO NEW CONTROLLER
- U - 1 CONDUCTOR NO 8 AWG-THHN/THWN ELEC. CABLE
- V - 1 CONDUCTOR NO 2/0 AWG-THHN/THWN, ELEC. CABLE
- DZ - DETECTION ZONE
- + - GROUND ROD (3/4" DIA.x 10' LENGTH)

TOD NO:XX351-02
SHA NO:PG769K52
MD 4 @QUARTER AVE/SPAULDING AVE



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 4(PENNSYLVANIA AVE) AT QUARTER AVE./
SPAULDING AVE., IN FORRESTVILLE, MD

GENERAL INFORMATION PLAN

SCALE NONE ADVERTISED DATE 11/24/2009 CONTRACT NO. XX3515168

DESIGNED BY EMM COUNTY PRINCE GEORGE'S
DRAWN BY EMM LOGMILE 16000428.40
CHECKED BY MAR 09/12/109 TMS NO. K029
F.A.P. NO. TOD NO.

TS NO.492C_G1 DRAWING OF SHEET NO. 2 OF 2

CENTURY
ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031

PLOTTED: Monday, December 07, 2009 at 11:43:56 AM
FILE: PG769K52_M04 spauld.dgn